

CLAIMS

1. A method for stabilizing a protein, which comprises the step of substituting an amino acid that is located adjacent to an amino acid being deamidated with another amino acid.
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2. The method for stabilizing a protein of claim 1, wherein the amino acid being deamidated is asparagine.
3. The method for stabilizing a protein of claim 1, wherein the amino acid that is located adjacent to the C-terminal side of the amino acid being deamidated is glycine.
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4. The method for stabilizing a protein of any one of claims 1 to 3, wherein the protein is an antibody.
5. The method for stabilizing a protein of claim 4, wherein the antibody is humanized antibody.
- 15 6. The method for stabilizing a protein of claim 4 or 5, wherein the amino acid being deamidated exists in the complementary determining region (CDR).
7. The method for stabilizing a protein of claim 6, wherein the complementary determining region (CDR) is CDR2.
- 20 8. The method for stabilizing a protein of any one of claims 1 to 3, wherein the protein is an antigen binding protein.
9. The method for stabilizing a protein of any one of claims 1 to 3, wherein the protein belongs to the immunoglobulin superfamily.
- 25 10. The method for stabilizing a protein of any one of claims 1 to 3, wherein the protein is a pharmaceutical agent.
11. A protein stabilized by the method of any one of claims 1 to 10.
- 30 12. The stabilized protein of claim 11 whose antigen binding activity is 70% or more of the activity before the amino acid substitution.